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Review Article

Chronic Pain and Frailty in Community-Dwelling Older Adults: A Systematic Review

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ABSTRACT

Objective: Our aim was to examine the relationship between chronic pain and frailty in community-dwelling older adults.
Design: A systematic review method following the *Joanna Briggs Institute Reviewers' Manual 2015.*
Data sources: MEDLINE, Cochrane Library Plus, Science Direct, Scielo, LILACS, and the Joanna Briggs Institute database of systematic reviews and implementation reports were searched using different combinations of the terms "frail," "frailty," and "pain."
Review/analysis methods: Original publications of nononcologic chronic pain and frailty status in community-dwelling older adults published in English or Spanish were included. Because of the heterogeneity of the studies, a narrative approach was used to summarize the results.
Results: A total of 23 studies were finally selected for the systematic review. Most of them (n = 14) were cross-sectional studies, and there were also longitudinal studies (n = 4), cohort studies (n = 3), and randomized controlled trials (n = 2). Most of the studies found an association between chronic pain and frailty in terms of prevalence; approximately 45% of frail patients had chronic pain, and prevalence can reach 70%.
Conclusions: The studies analyzed suggest that chronic pain has a predictive effect for frailty in older adults compared with those reporting no pain. Higher pain intensity, chronic widespread pain, and higher pain interference were also related to frailty status. No specific interventions for managing chronic pain in frail or prefrail older adults were found.

Frailty is a common and potentially incapacitating condition in older adults. It is defined as a clinical state in which an individual's vulnerability for developing dependency and/or mortality when exposed to a stressor increases (Morley et al., 2013). Some authors defined frailty as a predisability state in which an individual's health status and self-efficacy might be affected for different causes (Cesari et al., 2017). It is associated with high rates of hospitalization, chronic disease, disability (Bandeen-Roche et al., 2015), and an increased risk of death (Martínez-Reig et al., 2016). An adequate assessment of frailty could be challenging for health practitioners. One of the most commonly used tools to assess frailty is the Cardiovascular Health Study Frailty Screening Scale, which consists of a phenotype that includes weight loss, exhaustion, low activity, slowness, and weakness (Fried et al., 2001). Older age, female gender, financial strain, unhealthy lifestyle, dissatisfaction with living environment, and death of a loved one are determinants of frailty (Coelho, Paúl, Gobbens, & Fernandes, 2016). Some of these determinants such as age, gender, economic status, and worse health, are related to pain interference in older adults (Przekop, Haviland, Oda, & Morton, 2015).

Pain in older adults is not managed as well as in younger adults (Abdulla et al., 2013). Chronic pain (CP) has been identified as one of the most common, costly, and incapacitating conditions in older people (Bicket & Mao, 2015). It has been defined as pain that persists after normal healing time and last for more than 3 or 6 months (Treede et al., 2015). Osteoarthritis, rheumatoid arthritis, spinal canal stenosis, and neuralgias have been reported as the most common causes of CP in older adults (Bicket & Mao, 2015). Chronic pain in older adults has been associated with large societal costs

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and poorer quality of life (Bernfort, Gerdle, Rahmqvist, Husberg, & Levin, 2015). Older adults with more severe pain or more pain interference reported poorer results on memory tests and executive functioning (van der Leeuw et al., 2016). Chronic pain must be carefully evaluated in older adults because of its important potential consequences.

The number of older adults is growing rapidly in developed countries. According to the World Health Organization (2016) Report on Ageing and Health, by the year 2050, European Countries, North America, China, Japan, Russia, South Korea, and others will have an increased proportion of people aged 60 years or older of more than 30%. Currently, people aged 60 years or older represent around 25% of the population in those countries. This report also identified frailty as a complex health issue in older adults, and it urged policymakers and service providers to develop policies and strategies to act promoting healthy aging. Trying to prevent frailty by treating patients with CP could help to promote healthy aging in some older adults (Briggs et al., 2016).

A positive relationship between CP and frailty has been reported previously (Blyth et al., 2008; Coelho et al., 2016; Wade et al., 2016a). Based on the findings from these studies, it is important to review the literature systematically to describe the evidence of this relationship. The purpose of this systematic review is to examine the relationship between CP and frailty in community-dwelling older adults, in terms of prevalence, prediction, and severity.

Methods

Given the current state of evidence on CP and frailty, a systematic review method was used. The process and contents of the systematic review in this study followed the Joanna Briggs Institute guidelines (The Joanna Briggs Institute, 2015) and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Moher et al., 2009). Two research questions were addressed in this review:

1. What is the prevalence of CP among frail community-dwelling older adults?
2. Does CP predict the severity of frailty in community-dwelling older adults?

Search Strategies

A search for studies in the last 10 years was conducted in April and May 2017. The MEDLINE database was searched by the authors using the combination of terms [FRAIL*] AND [PAIN] in title and abstract. The same search strategy was followed in the Cochrane Library Plus and Science Direct databases. The Scielo and LILACS databases were searched using the MeSH (Medical Subject Headings) terms [FRAIL] OR [FRAILTY] AND [PAIN], and the Joanna Briggs Institute Database of Systematic Reviews and implementation Reports was searched using the terms “frail” and “pain” in full text.

Inclusion and Exclusion Criteria

The criteria for studies to be included in this review were as follows: (1) Type of participants: Participants were community-dwelling older adults aged 60 years or older. Nevertheless, studies that included a wider age range were eligible if the mean age of the study frail population was 60 years and older. (2) Types of studies: Original investigations about nononcologic CP and frailty published in the last 10 years. Studies published in a language other than English or Spanish were excluded. (3) Types of outcomes: Studies that measured frailty and pain as outcomes were included.

Studies were included by reviewers through a two-step process as shown in the PRISMA flow diagram (Moher et al., 2009) in Figure 1. Two reviewers screened titles and abstracts of the search results. Then potentially relevant studies were read for study inclusion and excluded if they did not meet inclusion criteria.

Data were extracted by a reviewer and revised by two other reviewers independently. The information was entered in an Excel document that included year of publication, author, country of origin, methodology, purpose of the investigation, study population, intervention type, duration of the intervention, outcomes of the investigation, and other key findings as recommended by the *Joanna Briggs Institute Reviewers' Manual 2015* (The Joanna Briggs Institute, 2015). A narrative approach and a table (Table 1) were used to summarize the results because of the heterogeneity of the literature.

Results

The first search yielded 503 studies. After the removal of duplicated results, 493 abstracts were screened following the initial screen. Twenty-three studies met the inclusion criteria and were selected for the systematic review. Studies characteristics are explained in Table 1. Some general observations include the following: The studies by Shega et al. (2012, 2013) studied the same population. The first one studied the relationship between pain and frailty and the second one the mortality after five years of follow-up. All investigations but two (Blyth et al., 2008; Wade et al., 2016b) included both genders. In the studies by Wade et al. (2016a,b), age cohort started at 40 and 50 years, but these studies were retained because mean age was older than 60 years.

What Is the Prevalence of Chronic Pain Among Frail Community-Dwelling Older Adults?

Ten studies reported that pain was associated with frailty status (Blyth et al., 2008; Castaneda, Jimenez, Escarcega, Sanchez, & Becerra, 2016; Chang, Chan, Kuo, Agnes Hsiung, & Chen, 2011; Coyle, Sions, Velasco, & Hicks, 2015; Dapp, Minder, Anders, Golgert, & von Renteln-Kruse, 2014; Koponen et al., 2013; Lohman, Whiteman, Greenberg, & Bruce, 2017; Muntinga, Jansen, Schellevis, & Nijpels, 2016; Serra-Prat et al., 2016a; Shega et al., 2012). Only two studies did not find an association between pain and frailty (Miguel et al., 2012; Morais, Terassi, Inouye, Luchesi, & Pavarini, 2017). The prevalence of CP in the analyzed population varied, but in all cases CP was common among frail patients. Around 45% of frail older adults reported CP (Blyth et al., 2008; Chang et al., 2011; Dapp et al., 2014; Koponen et al., 2013; Lohman et al., 2017; Muntinga et al., 2016). Other investigations found a prevalence of CP up to 70% (Castaneda et al., 2016; Coyle et al., 2015; Serra-Prat et al., 2016a) in frail or prefrail participants. These findings support an increased prevalence of pain in frail population.

Does Chronic Pain Predict the Severity of Frailty in Community-Dwelling Older Adults?

Five studies investigated the predictive effect of CP for developing frailty (Coelho et al., 2016; Lohman et al., 2017; Veronese et al., 2017; Wade et al., 2016a,b). Compared with patients who reported no pain, older adults with any pain were significantly more likely to have developed frailty (odds ratio [OR] = 3.38; 95% confidence interval [CI] = 2.65, 4.31) after 8 years of follow-up. Odds ratios were similar for patients with mild (OR = 3.08; 95% CI = 2.28, 4.16) and severe pain (OR = 3.78; 95% CI = 2.51, 5.71) (Wade et al., 2016a). European older men who reported any pain

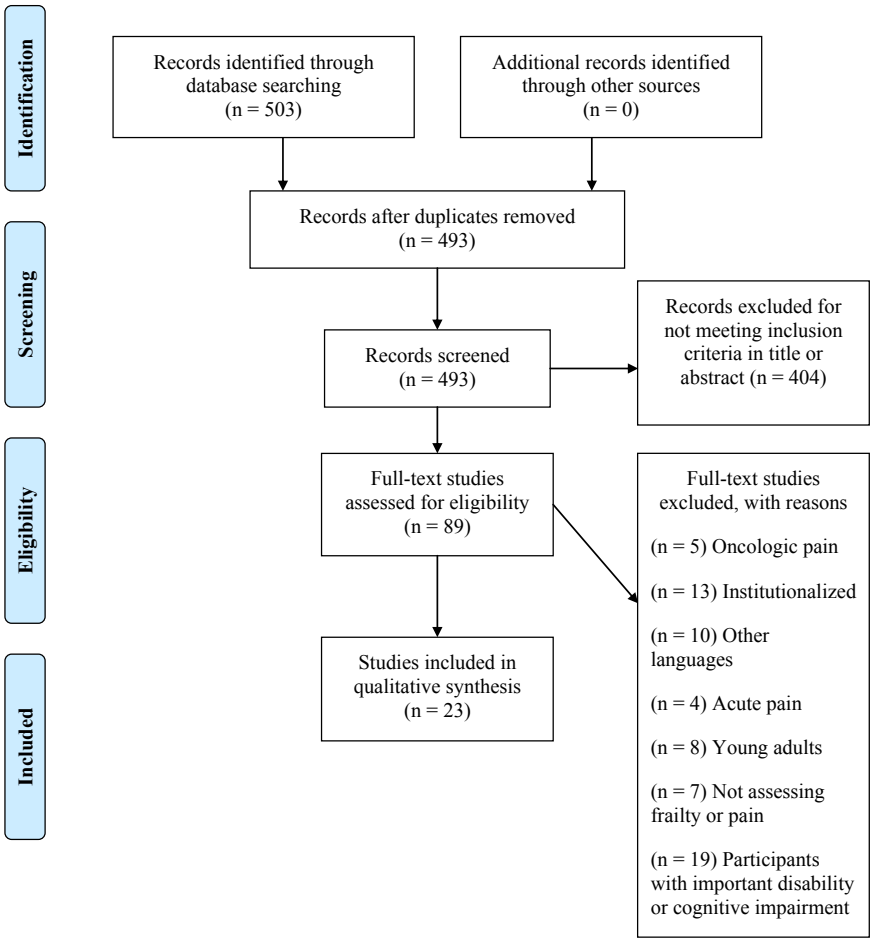

Figure 1. PRISMA flow chart of the selection of included studies in the review.

were more likely than those without pain to develop frailty after 4.3 years (OR = 1.59; 95% CI = 1.00-2.55), and the rate of frailty was significantly higher in those patients with chronic widespread pain (OR = 5.14; 95% CI = 2.82-9.38) (Wade et al., 2016b). Risk for developing frailty was also increased in patients with lower limb osteoarthritis pain ($p < .0001$) (Veronese et al., 2017). Pain independently predicted 5.8% of the variance of frailty, 5.9% of the variance of physical frailty, and 4% of the variance of psychological frailty (Coelho et al., 2016).

Eight investigations found an association between pain intensity and frailty status (Coyle et al., 2015; Hermsen, Leone, Smalbrugge, Dekker, & van der Horst, 2014; Koponen et al., 2013; Serra-Prat et al., 2016b; Shega et al., 2012; Wade et al., 2016a,b; Weaver et al., 2009). Meanwhile, two studies (Miguel et al., 2012; Morais et al., 2017) did not find an association between pain intensity and frailty. As specified before, the study by Wade et al. (2016a) found that older adults with CP get worse results on the English Longitudinal Study of Ageing (ELSA) Frailty Index, but this association did not change with pain intensity. Other investigations found that moderate or severe CP was associated with higher frailty prevalence. Prevalence of frailty in chronic low back pain patients with visual analogue scale scores ≥5 was 84.4%, whereas prevalence of those patients with visual analogue scale scores ≤5 was 47.6% (Coyle et al., 2015). Odds ratio for development of frailty was 3.8 (95% CI = 1.5-9.6) in patients suffering moderate pain and reached 24.2 (95% CI = 8.0-73.2) in patients with severe CP (Serra-Prat et al., 2016b). Another investigation found OR = 5.52 (95% CI = 4.49-6.64) for frailty and OR = 2.52 (95% CI = 2.13-2.99) for prefrailty in patients with moderate or severe pain after adjusting for gender, age, race, education, mood, and cognition (Shega et al., 2012). Another investigation by the same author found that patients with moderate or greater pain had lower odds of mortality than those with no pain or very mild pain (Shega et al., 2013); this effect is explained by an interaction between gender and pain such that women with pain were less likely to die within 5 years than women without pain and men with or without pain.

Frailty was associated with higher analgesic use. Prevalence of analgesic use was higher among frail (68.1%) and prefrail (54.4%) than among robust older adults (40.5%) (Koponen et al., 2013). Frailty status was also significantly associated with pain interference; those patients that reported higher pain interference also reported higher levels of physical frailty (Weaver et al., 2009). Depressive symptoms in patients with CP were similar between frail and nonfrail patients (Sanders, Comijs, Bremmer, Deeg, & Beekman, 2015). These findings support that higher pain intensity may worsen frailty in older adults. They also support an increased risk for developing frailty in older adults with CP.

Discussion

The results of this systematic review highlight that there is a connection between CP and frailty status. It seems that frail older adults are more likely to suffer from pain. Although in the general population of older adults CP prevalence is 25%-30% (Bernfort et al., 2015; Pautex, Rexach-Cano, Van Den Noortgate, Cedraschi, & Cruz-Jentoft, 2013; Santos, Souza, Antes, & D'Orsi, 2015), the prevalence of CP in frail patients is around 45%, and it can reach 87.5% (Castaneda et al., 2016).

Table 1
Characteristics of Included Studies

Author	Context Country	Aims	Sample	Methodology	Main Results
Blyth et al. (2008)	Australia	To study the relationship among pain, frailty, and comorbidity on Australian older men	1,705 men aged >70 years Mean age: 76.9 years	Cross-sectional study	Frailty status was incrementally associated with reporting intrusive pain ($p < .0001$). This relationship remained stable after adjusting for demographic variables and some comorbid conditions. Being frail and having a high comorbid burden were connected with higher likelihood of reporting pain.
Castañeda et al. (2016)	México	To study the association between chronic pain and frailty in Mexican older adults	131 older adults aged >60 years. Mean age: 68.7 (30.5% women)	Cross-sectional study	Chronic pain was present in 87.5% of frail patients ($p < .001$), 41% of prefrail adults, and 32.9% of robust older adults.
Chang et al. (2011)	Taiwan	To explore the prevalence of frailty defined by different instruments and to identify the factors associated with frailty.	275 older adults between 65 and 79 years (53.8% women)	Cross-sectional study	Pain history was incrementally connected with frailty status when measured by Fried Frailty Index ($p = .035$) and by Edmonton Frail Scale ($p = .006$).
Coelho et al. (2016)	Portugal	To analyze if pain predicts physical frailty, psychological frailty, and social frailty	252 older adults Mean age: 79.2 years (75.8% women)	Cross-sectional study	There were differences in physical frailty in patients aged older than 80 years and those aged 65-79. Pain predicted 5.8% of the variance of frailty, 5.9% of the variance of physical frailty, and 4% of the variance of psychological frailty. Social frailty was not significantly predicted.
Coyle et al. (2015)	USA	To explore the differences in frailty criteria in older adults with and without chronic low back pain	123 older adults Mean age: 70.1 years (56% women)	Cross-sectional study	Older adults with chronic low back pain (CLBP) had higher results of frailty criteria and were more likely to be classified as prefrail or frail ($p < .001$). Adults with high-intensity CLBP had greater proportions of frailty than those with low-intensity CLBP ($p = .002$).
Dapp et al. (2014)	Germany	To study the predictive power of the Functional Ability Index (FA index) for changes in health status, nursing care, and mortality	1,679 older adults Mean age: 72.3 years (62.1% women)	Cohort study	Classification as robust, prefrail, and frail correlated with self-reported health, chronic pain, and depressive mood ($p < .0001$). Patients initially classified as robust survived longer than those classified as frail ($p < .0001$).
De Vriendt, Peersman, Florus, Verbeke, & Van De Velde (2016)	Belgium	To investigate the effectiveness of a client-centered program to improve functioning and health-related quality of life	168 older adults (n = 86 intervention group, n = 82 control group) Mean age intervention group: 79.9 years (65% women)	Randomized controlled trial	The intervention group experienced improvement in basic activities of daily living (ADLs; $p = .013$) and the Physical subscale of pain ($p = .049$) in the Health-Related Quality of Life questionnaire.
Hermsen et al. (2014)	Netherlands	To explore the frequency, severity, and determinants of functional limitations in physical functioning, ADLs, instrumental ADLs (IADLs), and participation in older adults with joint pain and comorbidity	407 older adults Mean age: 76.8 years (62.4% women)	Cross-sectional study	Higher number of joint pain sites was significantly associated with poor physical functioning ($p < .05$). Higher pain intensity was significantly related to IADL limitations, and frailty was significantly associated with both outcomes.
Hinkka et al. (2007)	Finland	To investigate the effectiveness of a rehabilitation intervention for frail older adults	741 frail older adults aged >65 years Mean age: 77.6 years (84% women)	Randomized controlled trial	For pain, no significant differences were found between groups. After 1 year of follow-up, pain had decreased in both groups, but only in the intervention group did it decrease significantly ($p = .0456$). In the intervention group, 93% of participants reported being satisfied or very satisfied with the rehabilitation program.
Koponen et al. (2013)	Finland	To explore if analgesic use was associated with frailty in community-dwelling older adults and if there were differences in the types of analgesics used	605 older adults aged >75 years (70.1% women)	Cross-sectional study	Analgesic use increased as level of frailty increased ($p < .001$). A total of 44.3% of robust participants with pain rated their pain as moderate/severe; 59% of prefrail participants and 60% of frail participants rated their pain similarly ($p = .043$). Acetaminophen was the most common analgesic among frail and prefrail older adults ($p = .001$). NSAIDs were the most common analgesics among robust participants ($p = .003$).
Lohman et al. (2017)	USA	To evaluate if including pain in phenotypic frailty model predicted or changed the diagnosis of frailty	3,652 adults aged >65 years Mean age: 73.4 (56.5% women)	Longitudinal study	Findings regarding including persistent pain as a sixth frailty criteria in Fried's index included the following: 1. It allows better differentiation among frailty status (nonfrail, intermediate, frail).

					2. There was a graded increase in risk of falls, hospitalization, nursing home entry, severe disability in ADL, severe disability in IADL, and death comparing intermediately frail and frail patients with nonfrail patients.
Miguel et al. (2012)	Brazil	To characterize community-dwelling older adults with osteoarthritis focusing on the frailty syndrome	58 older adults Mean age: 74 years (93.1% women)	Cross-sectional study	No significant differences were identified in pain domain for robust, prefrail, and frail older adults. However, the frail group had a worse mean than the others groups.
Morais et al. (2017)	Brazil	To asses chronic pain in elderly caregivers at different levels of frailty	187 caregivers aged >65 years Mean age: 68.95 years (80.7% women)	Cross-sectional study	No significant differences were identified in pain intensity among robust, prefrail, and frail older adults ($p = .15$). Frail patients were older than prefrail or robust patients ($p = .03$).
Muntinga et al. (2016)	Netherlands	To evaluate the results of a nurse intervention for frail patients with pain	781 frail patients aged >65 years (315 patients with pain) Mean age: 79 years in pain group (79.4% women in pain group)	Cross-sectional study	Practice nurses identified 20 new pain cases by visiting people at home. More than half of the older adults whose pain had been identified by a doctor wanted a pain action plan. Nurses in primary care can help to expand older adults' access to pain care.
Sanders et al. (2015)	Netherlands	To study the effects of aging and frailty on the depression-pain relationship	1,528 older adults Mean age: 67.9 (50.4% women)	Longitudinal study	The association of pain and depressive symptoms is not changed by aging or frailty status.
Serra-Prat et al. (2016a)	Spain	To characterize a prefrail population consulting in primary care centers	171 prefrail older adults aged >70 years Mean age: 78.4 years (55.6% women)	Cross-sectional study	A total of 50% of prefrail patients had osteoarthrosis and 75.3% suffered from pain. Most common pain sites were lower limbs (59.8%) and back (45.8%). Back pain was associated with poor muscle strength ($p = .049$), and lower limb pain was associated with low physical activity ($p = .041$).
Serra-Prat et al. (2016b)	Spain	To identify principal factors associated with frailty in community-dwelling older adults	324 older adults aged >75 years Mean age: 80.1 years (47.5% women)	Cross-sectional study	Differences were identified among robust, prefrail, and frail groups in age, gender, educational level, some comorbidities, geriatric syndromes, pain, and number of medications. Frailty status increased as intensity of pain increased ($p < .001$).
Shega et al. (2012)	Canada	To study the association between persistent pain and frailty	5,703 older adults aged >65 years Mean age: 79.7 years (61.5% women)	Cross-sectional study	Of participants who reported moderate or greater pain, 16.2% were robust, 34.1% prefrail, and 49.8% frail. Patients with moderate or greater pain were more likely to be frail ($p < .01$).
Shega et al. (2013)	Canada	To study the association between nononcologic chronic pain and 5-year mortality in older adults	4,694 older adults Mean age: 79.6 years (62.1% women)	Cohort study	Patients with moderate or greater pain reported more frailty than those with very mild or no pain ($p < .001$). Individuals with moderate, severe, or very severe pain had lower odds of mortality than those with no pain or very mild pain ($p < .001$). An interaction between gender and pain explained this effect.
Veronese et al., (2017)	Italy	To investigate incidence of frailty in older adults with osteoarthritis (OA) with and without pain	1,775 older adults Mean age: 75.2 ± 7 (69.7% women)	Cohort study	At baseline, frailty was more common among patients with OA reporting pain of the hand, hip, and knee ($p < .0001$). Hip and knee OA-related pain was associated with higher risk of developing frailty compared with patients with OA and no pain ($p < .0001$).
Wade et al. (2016a)	England	To examine the association between pain and frailty development	5,316 adults aged >50 years Mean age: 64.5 (56.3% women)	Longitudinal study	Patients with moderate or severe pain had a higher risk of developing frailty than those with mild or no pain. Patients with any pain had a 17% higher Frailty Index (FI) score at follow-up.
Wade et al. (2016b)	European Union	To investigate if chronic widespread pain (CWP) predicted or was associated with frailty	2,736 men Mean age: 67.4 in those robust at baseline and frail at follow-up	Longitudinal study	Patients with pain at baseline were more likely to develop frailty at follow-up (OR = 1.59). Those with CWP had an increased risk of frailty (OR = 5.14). Compared with patients with no pain, patients with CWP at baseline had a 70% higher FI score at follow-up. Those patients with some pain had a 30% higher FI score at follow-up.
Weaver et al. (2009)	USA	To examine the prevalence of pain, severity, and interference of pain with performance of daily activities in Mexican American older adults	1,013 older adults aged >74 years Mean age: 82 (63% women)	Cross-sectional study	Pain severity ($p < .001$) and pain interference ($p < .01$) were significantly associated with physical frailty.

NSAID = nonsteroidal anti-inflammatory drug; OR = odds ratio.

The number of older adults in high-income countries is increasing continuously because of increasing life expectancy and falling fertility rates (World Health Organization, 2016). This suggests an urgent need for countries and health systems to develop new policies and strategies to prevent geriatric syndromes like frailty and to promote healthy aging. For instance, the European Union is developing a joint action on the prevention of frailty, included in the program Horizon 2020, which is the biggest European research and innovation program, funded with almost €80 billion (European Commission, 2017). The results of this systematic review re-enforced the idea that frailty and CP should be carefully managed by institutions and health workers.

Frailty increases with age, but it is not a direct consequence of aging (Cano García, Castelo Domínguez, & Pérez Cachafeiro, 2006). It can be prevented or treated (Morley et al., 2013). This systematic review indicates that CP can be a predictor of frailty. But only five investigations have been found to support this, so the evidence is limited in this area. Further investigations are required to determine what components of frailty are influenced by CP and to determine if pain qualities such as intensity, location, duration, or interference are associated with frailty development. According to the present investigation, pain with higher intensity is related to worsening frailty. Furthermore, incorporating persistent pain as a sixth frailty criterion in the Cardiovascular Health Study Frailty Screening Scale (Fried et al., 2001) could help to predict adverse effects of frailty (Lohman et al., 2017). A pain assessment should be accurately developed by clinicians to prevent physical and psychological consequences (Herr, 2011).

Although literature about the association between frailty and CP in older adults exists, those two phenomena have often been studied as two separate conditions. It has been reported that frailty increases an individual's vulnerability for developing dependency or mortality when exposed to a stressor (Morley et al., 2013). It is also known that CP is associated with disability from falls, depression, avoidance of activity, and isolation (Reid, Eccleston, & Pillemer, 2015). But few investigations have analyzed the consequences of CP in frail older adults in terms of quality of life impact, falls, dependency, institutionalization, or death. Health practitioners need to know the differences in pain management and assessment, if they exist, for robust, prefrail, frail, and dependent older adults.

Although our search did not yield any relevant results regarding specific interventions for older adults with CP, it is known that physical activity determines frailty status, and it is related with CP as well. Being physically active was significantly associated with lower prevalence of CP in older adults (Santos et al., 2015). Studies also found that 150 minutes of physical activity per week was associated with successful aging (Almeida et al., 2014) and is useful in frail patients and patients with multimorbidity (López-Torres Hidalgo et al., 2016). Consequently, those results suggest that managing CP in frail patients through promotion of physical activity could be helpful for older adults.

Limitations

As a result of our search strategies, some relevant studies about CP in older adults may have been missed if they did not refer to frailty in their title or abstract. Moreover, studies with different investigation methods and different outcomes could have been included: cross-sectional studies, longitudinal studies, and randomized controlled trials. In addition, all studies included in the review were written in English. Authors have not been able to find studies in Spanish that met the inclusion criteria, and investigations written in other languages were excluded. Finally, not all the investigations used the same tool to assess frailty. Different frailty tools could identify different populations and making results not totally generalizable.

Implications for Nursing Practice

There is a need for further research on pain management in older adults to prevent frailty and its consequences. It is also necessary to investigate the consequences of CP in frail older adults: How it affects their quality of life, autonomy, and mood. The results of this systematic review should encourage nurses to take the lead on further studies. A careful evaluation of CP and frailty status in the elderly could help health practitioners to develop specific strategies to promote autonomy, self-efficacy, and physical activity to manage CP in frail older adults.

Conclusions

Chronic pain and frailty are common events in older adults. Chronic pain is much more common in frail older adults than in the general population. Chronic pain could be a predictor of frailty in those individuals who have not yet developed frailty. There is a lack of interventions for frail patients with CP; specific interventions to manage CP in frail patients are necessary to prevent adverse consequences. It is also important to investigate which pain components are related to frailty development.

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